

Title (en)

SAFETY DEVICE, SELF-PROPELLED ROBOT SYSTEM, AND CONTROL METHOD

Title (de)

SICHERHEITSVORRICHTUNG, SELBSTFAHRENDES ROBOTERSYSTEM UND STEUERUNGSVERFAHREN

Title (fr)

DISPOSITIF DE SÉCURITÉ, SYSTÈME DE ROBOT AUTOMOTEUR, ET PROCÉDÉ DE COMMANDE

Publication

EP 4091773 A1 20221123 (EN)

Application

EP 20914653 A 20201228

Priority

- JP 2020005801 A 20200117
- JP 2020049187 W 20201228

Abstract (en)

A safety device according to the present disclosure includes a sensor that is attached to a self-propellable travel device or a robot provided to the travel device, is set with a given detection area on the basis of a position of the sensor, and detects an object existing within the given detection area, a motion suppressing device that suppresses motions of the travel device and the robot, when the existence of the object within the given detection area is detected by the sensor, and an area changing device that changes the given detection area according to operating states of the travel device and the robot.

IPC 8 full level

B25J 5/00 (2006.01); **B25J 19/00** (2006.01)

CPC (source: EP KR US)

B25J 5/007 (2013.01 - EP KR US); **B25J 9/06** (2013.01 - KR); **B25J 9/162** (2013.01 - EP KR); **B25J 9/1664** (2013.01 - KR);
B25J 9/1676 (2013.01 - EP); **B25J 13/086** (2013.01 - KR); **B25J 13/089** (2013.01 - KR); **B25J 19/022** (2013.01 - KR);
B25J 19/06 (2013.01 - EP KR); **G05B 19/41895** (2013.01 - EP); **G05D 1/0214** (2024.01 - US); **G05D 1/0248** (2024.01 - US);
G05B 2219/40203 (2013.01 - EP); **G05B 2219/40298** (2013.01 - EP); **G05B 2219/49138** (2013.01 - EP); **G05B 2219/50393** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4091773 A1 20221123; EP 4091773 A4 20240228; CN 114786881 A 20220722; CN 114786881 B 20240702; JP 2021112783 A 20210805;
JP 2021126770 A 20210902; JP 7421346 B2 20240124; JP 7480089 B2 20240509; KR 102704668 B1 20240906; KR 20220123059 A 20220905;
US 2023048039 A1 20230216; WO 2021145220 A1 20210722

DOCDB simple family (application)

EP 20914653 A 20201228; CN 202080084721 A 20201228; JP 2020005801 A 20200117; JP 2020049187 W 20201228;
JP 2021097259 A 20210610; KR 20227026106 A 20201228; US 202017791921 A 20201228